Geoconservation for Science and Society: An Agenda for the 21st Century

Worcester, 9th September 2011

Richard Pollock

This conference was organised by the Geologist's Association and was well attended by the many national and local groups interested in and associated with the overall conservation of geology from the perspective of World Heritage Sites and Global Geoparks through the local SSSI down to your own local museum exhibit. It covered how we can gain the interest of the general public and not just the 'geological enthusiast' interest in 'owning' our geological heritage.

The conference was excellently hosted by the University of Worcester on their St. John's Campus.

The conference addressed the issues facing geoconservation during these times of austerity, when all are facing a challenge to resourcing and funding. There are many concerns for the future, such as how to maintain our geodiversity sites in the face of financial stringency and how to raise the profile of geoconservation and geodiversity to levels more comparable with their biological equivalents.

Colin Prosser, from Natural England, outlined the continuing importance of our historical role in geodiversity and geoconservation portfolio protection through our national, regional and local groups. He stressed that geodiversity is fundamental to a healthy natural environment and our geoconservation portfolio should be a source of pride. But, he warned, that, unfortunately, most politicians, decision makers and members of the public remain unaware of geodiversity and geoconservation.

We must not also loose site of the possible loss of geologically important sites through waste disposal, and industrial and housing development, as was highlighted by Professor Mortimore for scientifically important chalk quarries in southern England. This issue may well come close to our area with the closure of the chalk quarry at Westbury and the probably more palaeontologically - important Kimmeridge Clay pit nearby.

Professor Jim Rose highlighted the problems with the recent White Paper 'Living with Environmental Change' launched this summer. The objective of this document is, using its own words, to: "understand nature's value to society". However, the report can be criticised for the lack of sufficient attention to the critical earth surface processes that determine the characteristics of the landscape upon which we live.

I could go on. The overall impression I took away from the conference was that a great deal of excellent work was being done at all levels with quite difficult funding issues by very dedicated people, but that there is a long way to go.

The following organisations gave talks throughout the day and gave a flavour of the breadth of effort being made in the area of conservation: Heritage Lottery Fund, the National Trust, Natural England, The Geology Trusts, Geoconservation UK, World Heritage Programme of the IUCN and Our Dynamic Earth.

At the lower, vitally important end of the scale of geoconservation was the talk by the Keeper

and Manager of Geology, Dudley Museum and Art Gallery, Mr Graham Worton, who impressed us with the Museum's work on the conservation of the important Silurian Reef complex at the Wren's Nest National Nature Reserve. This site is surrounded by 'sink' estates, and he and his team have worked with local community groups to involve the local children in the upkeep, knowledge communication and conservation of this vital site. These efforts in community outreach are having a major impact in lowering crime rates and fostering community wellbeing.

The Bath Geological Society, along with many other national, regional and local organisations made poster presentations during the breaks from the lectures. Our poster depicted our work at Brown's Folly and was well received and may I add my thanks to David Bridgland from the GA for his help in getting the poster printed and laminated. (The poster is reproduced on Page 5.)

INSIDE A MAGMA CHAMBER

Jane Browning

For the first time in history scientists, led by University of Iceland volcano researcher, Dr Freysteinn Sigmundsson, have descended into the magma chamber of a dormant volcano. The exploration team descended 650 feet into Thrihnukagigur volcano, Iceland which is about 100 miles from Eyjafjallajokull, which erupted in March 2010. The volcano last erupted about 3,000 years ago. They used traditional climbing equipment such as ropes and metal anchors before a metal lift was built to transport heavy scientific and recording equipment.

The inside of the magma chamber was tinged an eerie red due to the rusted iron ore that lined the chamber walls. They saw a weak layer of rock, that may have eroded easily helping with the creation of the volume that filled with magma during the last eruption. This magma then drained out and created an "open part" of the magma plumbing system which could be explore. These channels were on the order of two to six foot wide.

Photograph by Hans Strand
Volcanologists examine a piece of rock inside Thrihnukagigur

The team's observations will help in the knowledge of magma chamber formation and are being compared against other volcanoes such as Eyjafjallajokull.

Bath Geological Society is now on Facebook. Here you will find reminders about lectures and field trips, links to the Geology of the West Country Blog and any other tit-bits of information I can find.

Other sites which may be of interest include BGS, USGS and NASA .

Mellissa Freeman